

Lab welcomes science teachers from across country

Charles Pearson

Charles Pearson (Rhode Island) examines his fuel cell car as part of a lab activity exploring alternative energy.

Today's students are growing up in a world clamoring for solutions to the twin challenges of ever-increasing demand for energy and global climate change. To tap into the latest research and resources their students will need to make informed decisions on these complex issues, 39 science teachers from across the nation traveled to Idaho Falls and Idaho National Laboratory July 15-20 for the 2007 National Physics Teachers Workshop.

The workshop, "Nuclear Technology Addressing Worldwide Energy Demands," sought to increase teachers' content

teachers' group

Teachers from across the nation gathered July 15-20 in Idaho Falls to learn about nuclear energy and how to integrate energy topics into their science courses.

knowledge and familiarity with the concepts and benefits of nuclear energy and radiation. Teachers also had the opportunity to learn about the future envisioned by the Global Nuclear Energy Partnership (GNEP), which is part of President Bush's Advanced Energy Initiative and seeks to share the benefits of nuclear energy by developing advanced technologies to recycle used nuclear fuel, reduce wastes and avoid misuse of nuclear materials.

Participants representing 22 states spent the week in information sessions on radiation and nuclear energy basics, thermodynamics, beneficial uses of nuclear science and technology, nuclear power fundamentals and renewable and alternative energy resources. They participated in hands-on activities and conducted lab experiments to take back to their classrooms. Activities included building cloud chambers, constructing fuel cell and solar-powered cars, and gathering and analyzing data on radiation. The teachers also toured the INL site, visiting the historical Experimental Breeder Reactor I, the Advanced Test Reactor and the Materials and Fuels Complex.

Six teachers who attended the 2006 workshop returned this year to share how they integrated workshop topics and experiments into their classrooms. Teresa Oney teaches science at West Jessamine High School in Nicholasville, Ky. She shared lesson ideas and experiments integrating nuclear concepts in earth science and physical science. Jim Litz and Tamra Hatch, who teach middle school students in Missoula, Mont., led the teachers in energy debates they use in their classrooms to integrate science instruction with language arts, critical thinking and presentation skills.

After a full week of seminars and activities, the teachers returned to their states with expanded networks of colleagues and content experts, as well as curriculum and resource materials and lab equipment to help prepare their students to solve the energy challenges of the future.

High school teacher Joel Kuper from Greybull, Wyo., said "Nuclear energy can now be a big part of my physics course."

Kermit Gauthreaux, who teaches high school in St. James Parish, La., commented, "In all of the years that I have attended workshops for educators, this was by far the best. The workshop provided me with a better background and will make me more comfortable when I teach some of this material to my students. I hope more programs of this type will be presented in the future."

Margaret Morton, a middle school teacher in Maine, commented that "between the lectures and hands-on activities, I learned an incredible amount about nuclear energy and am excited about teaching it to my class. The materials we received will enable me to use inquiry methods with my class and stimulate their interest and enthusiasm."

EBR1 tour

Science teachers visit the historic Experimental Breeder Reactor-I as they tour the INL site.

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